
STANDARD OPERATING PROCEDURE

Zoll 1600/2000 Semiautomatic External Defibrillator

SOP 8.10.1

Rev. 5/01

PURPOSE: TO ESTABLISHES GUIDELINES FOR THE MEDICAL CONTROL, TRAINING, OPERATION, MAINTENANCE, AND QUALITY CONTROL PROGRAM FOR THE ZOLL 1600 SEMIAUTOMATIC EXTERNAL DEFIBRILLATOR.

DIHS medical facilities that offer only ambulatory care shall have Basic Life Support (BLS) capabilities with integration of automated external defibrillation (AED) (DIHS National Policy and Procedure Manual, 8.10).

I. Medical control

The clinical director in each DIHS medical facility is responsible for the oversight and performance of the medical staff authorized to perform automated external defibrillation within their facility.

Standing orders

Trained medical staff, as delineated in this Standard Operating Procedure, are authorized to perform Basic Life Support with Automated External Defibrillation in accordance with the American Heart Association recommendations (see appendix A).

II. Training

A. Initial Training

All clinical medical staff (physicians, nurse practitioners, physician assistants, pharmacists, registered nurses, licensed practical nurses, nursing assistants, medical assistants, radiology technicians, and laboratory technicians) will receive initial training and competency evaluation (see appendix B) in the operation, daily equipment checkout, and battery management of the Zoll 1600/2000 Semiautomatic External Defibrillator.

B. Other Training

All clinical medical staff (physicians, nurse practitioners, physician assistants, dentists, dental assistants, pharmacists, registered nurses, licensed practical nurses, nursing assistants, medical assistants, radiology technicians, and laboratory technicians) will

receive initial training in BLS with AED.

(This training is available through the American Heart Association's current curriculum in Basic Life Support for Healthcare Providers. Prior to taking the class, confirm that the AED training will be included. AED training is also incorporated in the American Heart Association's Advanced Cardiac Life Support curriculum. At present, the American Red Cross does not include AED training in their curriculum).

III. Maintenance of skills

- A. Recertification biannually in BLS for Healthcare Providers with AED.
- B. Practice sessions at least once a quarter. Recommended minimum content of a 30 to 60 minute practice session:
 - 1. Review of recent performance treating patients in cardiac arrest.
 - 2. Review of operation and maintenance of equipment.
 - 3. Review of standing orders.
 - 4. Discussion of treatment possibilities.
 - 5. Scenario practice of protocols with a training manikin, a defibrillator, and a rhythm simulator. This practice should simulate actual cardiac arrests and include entrance to the scene, two-person response teams, ongoing CPR, a variety of initial rhythms, and a variety of post shock responses.
 - 6. An objective skills test with a skills checklist (see appendix B).

(Recommendations per: 1997, American Heart Association, Basic Life Support for Healthcare Providers).

IV. OPERATION / MAINTENANCE

- A. Equipment
 - 1. The Zoll 1600/2000 Semiautomatic External Defibrillators distributed to the ambulatory clinics within the DIHS are configured for semiautomatic mode. Manual mode and non-invasive temporary pacing capabilities are not required in the ambulatory clinics. The following is a list of the minimum equipment and accessories required for the operation and routine maintenance of the Zoll 1600/2000:
 - a) Zoll 1600/2000 Semiautomatic External Defibrillator
 - b) 4- Rechargeable battery packs
 - c) 1- Zoll 2 x 1 battery support system
 - d) 1- Zoll 1600/2000 operator's guide
 - e) 1- Zoll 2 x 1 battery support system operator's manual
 - f) 1- multi-function cable
 - g) 3-lead ECG cable
 - h) 2- multi-function electrodes
 - i) 2- sets of ECG electrodes
 - j) 1- Zoll ECG simulator
 - k) 2- PCMCIA data cards

B. Operation / Maintenance

1. The manufacturer's recommendations will be followed for the operation / maintenance of the Zoll 1600/2000. These recommendations are found in the Zoll 1600/2000 operator's guide. Since the INS/HSD Zoll 1600/2000 defibrillators are not configured for manual mode, or non-invasive temporary pacing, sections 3 and 4 in the operator's guide do not apply to the operation of the equipment.
2. The Zoll 1600/2000 will be checked for operational readiness every day the clinic is staffed (clinics with weekend staffing will perform operational checks on the weekends). Daily checkout procedures will follow manufacturer recommendations and will be documented on the Daily Checklist for Zoll 1600/2000 (see Appendix C).
3. The manufacturer's recommendations will be followed for the operation / maintenance of the Zoll battery support system and batteries. These recommendations are found in the Zoll 2 x 1 battery support system operator's manual.
4. Manually operated battery testing will be performed at least every 90 days. Manufacturer's recommendations for manual battery testing will be followed.

V. Quality control program

All cases requiring the initiation of CPR will be reviewed by the Clinical Director to evaluate medical personnel performance, and overall effectiveness of the emergency response system. Feedback from evaluation will be reported to the Performance Improvement Committee.

Appendix B

DIHS COMPETENCY EVALUATION OPERATION / MAINTENANCE FOR ZOLL 1600/2000

Date: _____

Yes No

- | | | | |
|----|---|-------|-------|
| 1. | Understands and demonstrates correct procedure for Semi-automatic mode operation. | _____ | _____ |
| 2. | Understands and demonstrates correct procedure for battery Management. | _____ | _____ |
| 3. | Understands and demonstrates correct procedure for ECG monitoring. | _____ | _____ |
| 4. | Understands and demonstrates daily equipment checkout procedures. | _____ | _____ |
| 5. | Understands limitations of equipment and troubleshooting procedures. | _____ | _____ |
| 6. | Understands Standard Operating Procedure for the Zoll 1600, standing orders, and manufacturers operation manuals. | _____ | _____ |

Signature of evaluator

Signature of employee

Skills maintenance / Periodic reassessment:

<u>DATE</u>	<u>EVALUATOR</u>	<u>MEETS STANDARDS</u>

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Appendix C

DAILY CHECKLIST FOR ZOLL 1600

Month: _____

Date/Shift									
Zoll 1600/2000 Unit clean, no spills, clear of objects on top, case intact									
Two sets defibrillator pads present									
Packages sealed, with appropriate expiration date									
Inspect cables for cracks, broken wires, connectors									
A ECG electrode cable, connector									
B Multi-function cable, connector									
Fully charged battery in unit									
Fully charged spare battery available									
Memory Cards (2)									
ECG electrodes (2)									
Alcohol wipes (20)									
Razors (2)									
Power Up Sequence Test									
Defibrillator Test (Semi-Automatic Mode)									
Please check the appropriate box after each use of this checklist									
No action Required									
Minor problem(s) corrected									
Disposable supplies replaced									
Major problem(s) identified - UNIT OUT OF SERVICE									
Initials									

